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Toronto Office

The Province of Alberta

IN THE MATTER OF "THE NATURAL GAS UTILITIES ACT"

—and—

IN THE MATTER OF an Enquiry into Scheme to be adopted for Gathering, Processing and Transmission of Natural Gas in Turner Valley

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G. M. BLACKSTOCK, Esq., K.C., *Chairman*

Dr. E. H. BOOMER, F.C.I.C., *Commissioner*

Session:

CALGARY, Alberta October 3rd, 1945

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W I T N E S S E S

E X H I B I T S

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VOLUME 45

9.30 A.M. Session
3rd October, 1945.

MR. McDONALD: Mr. Chairman, before Mr. Blanchard starts I thought I should ascertain exactly the position with regard to the affidavit filed by Mr. Steer. I understand it was filed on a motion which was made by myself the other day. Now I have not had a chance to arrange for cross-examination on this affidavit and I would like that opportunity.

THE CHAIRMAN: Can you be ready to do it this morning?

MR. McDONALD: No. I was hopeful to finish with Mr. Stevens-Guille and I thought possibly Monday or Tuesday morning it might be done the first thing.

THE CHAIRMAN: Well you are entitled to cross-examine on it and if you cannot do it today then it will have to be on Tuesday.

MR. McDONALD: Then there is another matter, Mr. Chairman, I would like a definite date fixed and I thought I would like to discuss it now, as to giving the evidence of Mr. Zinder. The date of November 12th is satisfactory to him. He is engaged on gas Hearings which are being conducted by the Federal Power Commission in the United States and wishes to sit in on those.

THE CHAIRMAN: We are going to start with Mr. Hamilton when Mr. Stevens-Guille is finished, as I understand.

MR. McDONALD: Yes.

THE CHAIRMAN: How long will that take, Mr. Blanchard, have you any idea?

MR. BLANCHARD: It is hard to say, sir. It will depend on cross-examination.

MR. CHAMBERS: I understand we are not sitting the weeks of the 15th, the 22nd and the 29th, is that right?

THE CHAIRMAN: That is right.

MR. BLANCHARD: I was going to suggest in connection with Mr. Hamilton's evidence, and perhaps I might mention it now, I was going to suggest this that Mr. Hamilton be cross-examined at the end of each branch of his evidence. For instance, he will deal first with the rate base and my suggestion would be that counsel then proceed to cross-examine on that particular branch rather than for Mr. Hamilton to go through the whole of his submission and then have a general cross-examination. It seems to me for the purposes of the record and for revision later on that it would be very much more orderly if we did it in that way. I do not know what counsel have to say about it.

THE CHAIRMAN: I quite agree. The record is in a bad enough hodge-podge now without making it worse if we can avoid it and I assume that counsel has been studying Mr. Hamilton's material and preparing for cross-examination as far as they can. No one says anything so I may take it my assumption must be correct.

MR. McDONALD: What I have in mind, Mr. Hamilton would have two or three days next week and again on the 5th of November, that would be six days before the 12th. Now if his examination should run over into the next week that would be all right.

THE CHAIRMAN: Have you anyone with whom we might go on.

MR. McDONALD: I have two witnesses that I can put in, if Mr. Hamilton finishes in the meantime.

THE CHAIRMAN: All right, Mr. McDonald, we will have that evidence then on the 12th of November.

MR. CHAMBERS: If I might intervene before Mr. Blanchard proceeds, there was certain information asked for yesterday and possibly it would be better to put it in now rather than in re-examination.

THE CHAIRMAN: Yes.

H. LeM. STEVENS-GUILLE, having been recalled, direct examination continued by Mr. Chambers:

MR. CHAMBERS: I produce the first statement.

STATEMENT PRODUCED HERE
MARKED AS EXHIBIT 121.

Q MR. CHAMBERS: That is Exhibit 121; Mr. Stevens-Guille, will you please explain what this statement Exhibit 121 is.

A These figures show the estimate of the marketable reserves from Sections 17 & 18, township 21, range 3, as requested by Mr. Steer and the Chairman back in something like April, I think, and was referred to by Mr. Steer yesterday. The information is being based on the data given in Madison Report M-1, which is Exhibit 44.

Q That is Mr. Connell's report?

A Put in by Mr. Connell and it is being shown in two ways, using the conditions of production that were laid down in Report M-2 Revised, which was Exhibit number 47 submitted by myself and also on the conditions assumed in Report M-2A, Exhibit 48, which was also put in by myself.

Q For the purposes of ready reference in the record, as I understand it, the first two columns are based on Exhibit 47, assumed conditions?

A That is correct.

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CITY TRUSTEE: All right, Mr. Johnson, we will now hear from Mr. Stevens-Dillie.

MR. STEVENS-DILLIE: Over eighty-eight percent of the people, Mr. Johnson, were contacted for information which was partial information based for your information. Nine-hundred-and-twenty-five people have been contacted. Nine-hundred-and-twenty-five people have been contacted. Nine-hundred-and-twenty-five people have been contacted

Q And Exhibit 48 is the one which ties into the last two columns?

A That is right and in the top part of the sheet we show the reserves from the wells which are actually producing and connected to the Madison gas gathering system today, British Dominion 5 and 6, Home Millarville 18 and Atlas British Dominion 2 and 3.

The total reserves under the Exhibit 47 conditions amounts to seven billion nine hundred and ninety-eight million (7,998,000 Mcf.).

Then going down to the bottom section of the page we show the estimated reserves from wells which have not so far been drilled but which in Report M-1 and Report M-2 Revised we considered as possible locations and the total estimate there is three billion five hundred and sixty-nine million cubic feet (3,569,000 Mcf.), giving a grand total under Exhibit 47 conditions of eleven billion five hundred and sixty-seven million cubic feet (11,567,000 Mcf.)

Now going back to the top of the page and across to the last two columns, where the conditions were shown as assumed in Report M-2A, Exhibit 48, the same group of wells as I have already enumerated would have an estimated reserve of five billion five hundred and twenty-five million cubic feet (5,525,000 Mcf.) and in the second half of the table the assumed locations which had not at that time been drilled would have a reserve of three billion four hundred and ninety-six million cubic feet (3,496,000 Mcf.), giving a grand total of nine billion and twenty-one million cubic feet (9,021,000 Mcf)

Q Now, Mr. Stevens-Guille, you also, since yesterday, prepared

a statement showing residue gas deliveries to Madison Gas Company Limited from Gas and Oil Refineries Limited.

A Yes, that is correct.

MR. CHAMBERS: Then that would be exhibit 122.

STATEMENT PRODUCED HERE
MARKED AS EXHIBIT 122.

Q Yes.

A Now those figures were prepared in answer to Mr. Steer's question with regard to the amount of residue gas that had been delivered to Madison by the Gas and Oil Refineries Limited for pumping up to the Madison Scrubbing Plant.

The figures are given in monthly totals and as I pointed out yesterday in evidence it only, the operation only started late in January, therefore the January total is small at twenty-nine million one hundred and eighty-four thousand cubic feet (29,184 Mcf.); February, the load on the compressor was not maintained at 100 per cent, therefore the total given was somewhat low, seventy-six million a hundred and sixty-eight cubic feet (76,168 Mcf.).

In March the load had been greatly improved and the figure raised to a hundred and twenty-eight million a hundred and fifty-eight thousand cubic feet (128,158 Mcf.).

In April there was approximately 100 per cent load at all times and the figure, the total rose to a hundred and forty-two million eight hundred and eighty-eight thousand cubic feet (142,888 Mcf.).

May, June and July, there was 100 per cent loads available almost constantly and therefore the figures are approximately the maximum of the compressor at

a hundred and thirty-seven million, six hundred and fifty-two thousand (137,652 Mcf.); a hundred and thirty-six million eight hundred and ninety-three thousand (136,893 Mcf.) and at a hundred and thirty-five million a hundred and forty-eight thousand (135,148 Mcf.) respectively. Giving a total for the first seven months of the year of seven hundred and eighty-six million ninety-one thousand cubic feet,(786,091 Mcf.).

I have added the August and September figures in case they are of value to Mr. Steer, the August figure was a hundred and thirty-four million six hundred and seventeen thousand cubic feet (134,617 Mcf.) and the September, one hundred and eight million seven hundred and fifty-eight thousand cubic feet (108,758 Mcf.). The lower figure in September was due to the fact that the Gas and Oil Refineries' Absorption Plant was shut down for three days during that month for steel inspection. Giving a total from January to September inclusive of one billion, twenty-nine million, four hundred and sixty-six thousand. (1,029,466 Mcf.).

(Go to page 3467)

Q You have also prepared a statement, Mr. Stevens-Guille, showing first of all the wells connected to the Royalite scrubbing plant prior to 1943 and then the wells connected to Royalite #1 absorption plant for the years 1933 to 1943 ?

A That is correct.

STATEMENT PRODUCED AND REFERRED TO NOW MARKED EXHIBIT 123.

Q You might explain that.

A This was in answer to a question from Mr. Steer again and shows the wells connected to Royalite scrubbing plant prior to the year 1933. The number was 24. The wells connected to Royalite absorption plant #1 by years from 1933, the year it was built, to 1943 are as follows:- 39 in 1933. 49 in 1934. 39 in 1935. The drop there was due to #2 plant being started up and some wells that had been delivering gas to the #1 plant were re-routed to deliver gas to the #2 plant. In 1936 there were 53. In 1937, 61. In 1938, 62. In 1939, 64. In 1940, 64. In 1941, 68. In 1942, 70, and in 1943, 115. The big increase in 1943 being due to the consolidation of gasoline plant #2 with gasoline plant #1. Several of the wells that had delivered to gasoline plant #2 thereafter delivered to gasoline plant #1.

I have some other information Mr. Chambers which is not in the form of an Exhibit. Perhaps it would be as well if I referred to it now. With regard to your question, Mr. Steer, of reconciling Mr. Donellan's figure of 50 billions with our figure of 64 billions odd, I find on study that I am not in a position to do that, not merely because I have no definite information of where Mr. Donellan actually took his figure of 50 billions but assuming he took it from Mr. McCutchin's estimate, I would find myself in the same position as I think it

was Dr. Katz, who pointed out like Mr. Harvie did yesterday, that the method of approach or determining these reserves was different in the different cases and therefore they are not susceptible to reconciliation, so I have finally found myself in the position of being unable to answer that question.

Mr. Blanchard, in regard to your request for figures on the estimated volumes to be stored in Bow Island, I find as I suggested that we had got them estimated for the years up to 1948. That estimate was made and used by our accountants in their estimates of operating costs, so possibly those might be the figures that would be useful to your purpose. I have not got the sheets typed. They were in Turner Valley and they did not get in in time to have it re-typed in quantity so I suggest that I read the figures into the record.

For 1945 the estimate was 935,600,000.

MR. CHAMBERS: Is that m.c.f. ?

A No, that is 935,600,000 cubic feet. For 1946, 1,002,500,000 cubic feet. For 1947, 1,001,000,000 cubic feet. For 1948, 920,500,000 cubic feet.

MR. HAMILTON: Give us 1946 again please.

A 1,002,500,000.

MR. HARVIE: That would be 1,000,250,000 ?

A No, 1,002,500,000. Have you got the other years ?

MR. HARVIE: Can you give us 1947 again ?

A 1,001,000,000 cubic feet. You also asked, Mr. Blanchard, what the valuation was of the portion of line laid as a discharge line from compressor station #3 to connect into gas gathering line #5. That portion of the line consists of 7,780 feet of 10¾ inch pipe. Now Mr. Hill made no separate valuation of that particular portion of the line. It is included in his total

footage of 10¾ inch pipe, so taking it at his unit price of $3.30 per foot, the valuation would be approximately $25,674.00 without any allowance for his 9% overhead or other items of that nature.

CROSS-EXAMINED BY MR. BLANCHARD:

Q With regard to that item, Mr. Stevens-Guille, would that figure of $25,000.00 that you have just mentioned, have been saved if #2 plant had been left in operation and a line put from #2 to say Hartell Junction or the nearest point on the north - south transmission line ?

A No, I would say, Mr. Blanchard, if #2 plant had been left in operation the total inventory of lines would have been greater than it is today under the system as it is set up.

Q That is just what I wanted to get at. In other words there would be no saving to the system as a whole if #2 plant had been left there. The dry gas transported from #2 to the main transmission north and south you say there would have been just as much footage of pipe as there is today taking into account the discharge line ?

A I can go further and say not only just as much but probably more.

Q All right, that explains that. Now assuming Mr. Stevens-Guille that your normal load for this system were 10 billion cubic feet a year ?

A Yes.

Q That is your normal market and a war industry came along and said, now what will you deliver us 3 billion additional cubic feet for. Can you give us an estimate of what the additional cost would be per thousand cubic feet for scrubbing and for

gathering relating to the delivery of that additional gas ?

A Well of course, Mr. Blanchard, with an increase in throughput the cost per unit volume in general tends to go down, so that operates in one direction whether that would cause the price to be lower or whether there would be any other causes to offset it I would not be in a position to say offhand.

Q Well I just wondered, suppose for instance the Directors of Madison said to you, Mr. Stevens-Guille we have a proposal from a war industry to furnish them with 3 billion cubic feet of gas a year additional to what we are normally supplying the market. Now can you tell us how much a thousand cubic feet will be our additional direct cost for scrubbing and gathering in relation to that additional 3 billion cubic feet. I suppose that could be -

A Well my answer would be sir that I could not tell them, but they would have to go to the accountants and they would have to go through all the tremendous number of steps which is necessary in this complicated set-up to find the effect right through and produce the answer in a unit cost.

Q Well I am not speaking for instance - I am not speaking of your return on your investment or your amortization or anything of that kind. I am speaking only of the direct additional cost ?

A Yes, but I mean there are some direct costs that can be apportioned and some do not and you would have to make a proper study to answer that.

Q You would have to ask yourself whether you would have to use additional lubrication, etc. ?

A Chemicals, men, repair time, actual repair costs and material.

Q Then of course your Company also would say, or might say this

only costs so much more per thousand cubic feet to deliver this additional 3 billion feet, we will add to that our well head price, let us say of 2 cents and would it be good business then to furnish that on that basis, simply the increment cost, plus the cost of your gas at the well head ?

A But I do not think Mr. Blanchard, if I am following you right, it would be within Madison's jurisdiction to say what they would supply it at.

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Q Well do you know whether that was the basis on which the price of 5.4 cents was arrived at?

A No, I do not.

Q For the Nitrogen Company?

A No, I do not know that.

THE CHAIRMAN: But would not the field engineer of any company require calculations with regard to that? You suggest to Mr. Blanchard that it would be no part of Madison's duty to do that, but try to forget for a moment that Madison is just a company in the field . . . . .

A Do not misunderstand me, Mr. Blackstock, I am not suggesting that we would not have an opportunity to apply that in arriving at the answer. I am sure we would. I am sure you would ask us for information with regard to it, but whether you would set the price what Mr. Blanchard suggested or in some other way, that is what I am saying.

MR. BLANCHARD: Will you leave the Board out of it for the moment, Mr. Stevens-Guille, and assume that the Board has nothing to do with it, that it has not got any jurisdiction at all, you could then arrive at the actual increment in your costs, couldn't you?

A Oh definitely. We would make a study of it and say which would be proportional to the increase and which not and arrive at the answer.

Q Would that be a long and arduous proceeding?

A Yes, it takes quite a considerable time. You would have to go through every item in the plant.

DR.BOOMER: Would you expect the increment costs to increase by 20 or 25%?

A To tell the truth, Dr. Boomer, I just have not been through

those calculations and I would not like to make a guess like that.

Q You would not guess whether it would be in the order of a fifth or a fourth of your average costs?

A No, I would not like to guess offhand.

Q MR. BLANCHARD: Well in the same way I suppose you could arrive at the increment cost for the gas gathered for repressuring?

A Yes.

Q And say how much more a thousand this gas is going to cost?

A If it does come to more. It might come to less.

Q Well it is going to cost something, I suppose?

A It just depends on the balance between direct costs that go up on a greater throughput and the ones that stay the same, whether the unit costs over volume will go up or whether it would not.

Q Well, let us assume, as I say, that your firm is supplying the market with 10 billion cubic feet, and as the result of the contract you propose to sell 13 billion cubic feet, how much per thousand has your direct operating cost increased for gas gathering and for scrubbing?

A My guess at the moment, Mr. Blanchard, would be without having made a study of it, that if the load increased from 10 billion to 13 billion, your direct operating costs per unit volume would decrease, and not, as you suggest, increase.

Q Well you are talking of totals, but I want to know for those 3 billion cubic feet. Do you mean to say that for the whole cost, or the whole cost would be less?

A Yes sir.

Q Therefore you could afford to put through that 3 billion

cubic feet for nothing?

A No, I did not mean that, sir.

Q Perhaps I do not follow you. What I would like to know is, let us put it in another way, let us say, how many thousand dollars more would it cost you for gathering, leaving it at per thousand cubic feet, how many thousand dollars more would it cost you to gather, and how many thousand dollars more would it cost you for scrubbing during the course of the year?

A I could not answer that right offhand.

Q No, I did not expect that you could answer it right offhand, but could you tell me in time?

A Well, a study could be made of these things, as studies have been made of other things, and submitted. It just means making another study. You have already an operating cost worked out from 1945 to 1948, along the lines which you are talking about. The volumes reached in those years are different, and it will be seen how it rises and falls with the changing in throughput.

Q What I had in mind for one thing, take the gas that is re-pressured, there is additional gas over and above the market requirement that is gathered for repressuring. Now, should that gas be charged for on the same basis as other gas, or should it be charged simply on an increment cost basis? That is, should you just say, "Well, it only costs us $5000.00 a year to gather that additional gas, and that is what should be charged against the gathering costs of gas for repressuring." You see what I am getting at there?

A Yes.

Q Now I do not like to load you with any more labour in connection

with this, but I wondered if you could give that some thought?

A Well, of course, the one who had these things at his fingertips was Mr. Kirkpatrick. He worked out those increment costs, the estimated costs, and he could probably have answered the question.

Q Well, is there some other official or accountant in the organization that could arrive at the same thing?

MR. CHAMBERS: We will have somebody give some consideration to it and let you know. You are not suggesting that it should be done immediately?

MR. BLANCHARD: No, I am not suggesting that it should be done today, but I think the Board at some time is going to have to ask itself how much should be charged for gathering the gas for repressuring when it comes to say where that cost is to fall. Well, we will leave it for the moment. Now, to go back to the days when you were operating the Number 2 absorption plant, what considerations decided whether a line would be installed to take gas from any particular well?

A I did not actually design any of the lines myself, Mr. Blanchard, but I would imagine the general one, and that is if a well was in reasonably close proximity to a line and had an operating pressure sufficient to enter the line, that well was connected, if a contract could be obtained.

Q Well, the putting in of that line involved cost, and it involved operating costs, I mean, as well as your capital investment?

A Yes, that is true.

Q Now then, was there some general basis upon which you exercised judgment as to whether or not a line would be put in or would not be put in to gather gas for your absorption

plant?

A Well I think that general basis, is the one on which I have given you, and that is that if the well was close it was connected to the line, that is to say, if the capital investment was small it was connected to the line.

Q And did you take into consideration how long it would take to pay off that investment?

A I imagine some consideration was given to that.

Q Well, what was the period to pay off, do you know? The period that is usually applied?

A As I said, I did not design those lines so that I could not tell you what the exact system used was beyond the probable general one.

Q You do not know whether there was any particular period of pay-off used as a basis for deciding those things?

A No, I do not.

Q Do you know whether there were any different considerations applied to wells in the Number 2 absorption plant area to those in the Number 1 absorption plant area in extending lines to bring gas to your absorption plant?

A I cannot think of any specific ones offhand.

Q The same rule of thumb would apply, would it, in both cases?

A Yes, I think so, sir, as far as I know.

THE CHAIRMAN: Would not the volume come into that, Mr. Stevens-Guille?

A Well, that comes into the final calculated amount. The Number 1 would have the sale for residue gas as well as your gasoline.

DR. BOOMER: Who can give us specific answers to that, if you cannot, Mr. Stevens-Guille?

A I could not say, sir.

THE CHAIRMAN: One assumes that Royalite is not in the business for the purpose of philanthropy, they are there for the business of making money, and quite properly so. When they enter upon operations surely like any business man, even we lawyers have to sit down and calculate the cost and try to anticipate the end result before embarking upon the adventure, and then the end result would demonstrate whether or not the original factors taken into consideration were accurate or inaccurate. Surely that is available somewhere, Mr. Stevens-Guille?

A As far as I know, as far as Number 2 plant was concerned, they embarked on it in good faith, thinking that there was a volume of some 65 million a day to be processed, and then the legislation was changed so that was cut off.

Q But when the plant was originally built, and again forgetting about Royalite, I suppose that there was some advice given as to the basis upon which they would embark on such an enterprise?

A Well, sir, today no doubt we would make an estimate such as we have submitted here as to the reserve that was in sight, and if that had been done in the case of Number 2, the unfortunate engineer would have been grossly at fault, as it turned out. Whether it was done or not I cannot say.

Q Well I am trying to get this information, and I think Mr. Mercer, I think it was suggested a very long period of write-off, and even inexperienced as I am, I would imagine that in a business so hazardous as to call, in the opinion of your witnesses, for the reward of 9½% per annum, I think it would be only an act of common prudence to recover the capital cost over a very short period, and if there is such a thing,

I would like to know what the period is. Is that what you are asking, Mr. Blanchard?

MR.BLANCHARD: Yes.

A THE WITNESS: I would imagine that the original period was a short one in view of the high load on the plant. Those conditions did not turn out to be correct, and as the plant was being operated later it was on an entirely different set of conditions.

Q MR. BLANCHARD: Well you say when Number 2 plant was built it was expected that you would process altogether some 60 billion cubic feet?

A No, I said 65 million cubic feet per day.

Q Oh. And was any estimate made of the recoverable gas, the gas that could be recovered for treatment in that area?

A Well there might have been, but as I say I have not any knowledge of what was done, and I think it is a good example in the result of the business, and from the estimate it would be absolutely wrong.

Q Your capacity of the Number 2 was 75?

A 65 to 70 million under the conditions.

Q If you processed that every day it would come to something in the neighbourhood of 23 or 24 billion cubic feet a year, wouldn't it, something in there?

A Yes, something in there.

(Go to page 3479).

Q Now I want you to go on to the boiler and electrical plants for a moment. In those plants 75 per cent of the load is used by the Royalite and the Valley Gas Company.

A The Valley Pipe Line Company.

Q The Valley Pipe Line Company, yes, and you do not know how long that power and steam will be used by those two companies.

A The estimates have been made on the life of the Valley Pipe Line Company and they have been offered at the Valley Pipe Line Company Hearing.

Q All right, how long is that?

A Well there will be crude oil to take out of Turner Valley for 7 or 8 years from now and after all the last two barrels will have to be pumped.

Q After 7 or 8 years, or we hope a little longer, say 10 years, their requirements will cease so you then have some excess capacity.

A No, Mr. Blanchard, there is another point you are overlooking there. The life of some of these boilers in there, according to Mr. Hill's own valuation, will not be as much 7 or 8 years from now. They go out of the picture. So you lose a large proportion of your generating capacity.

Q Then you do not know how long the absorption plant will operate?

A No, beyond the fact that the absorption plant is going to have to operate for the life of the scrubbing plant.

Q Oh yes, I know. But I mean to say you do not know how long Royalite will operate it.

A No sir.

Q There is a possibility that in the course of 10 years you will have plants, boiler and electric plants of which you

are only using 25 per cent of its capacity.

A No, I do not agree with you because if the absorption plant is not operated by somebody, Royalite or others, then the rest of the operation will discontinue. Therefore none of the equipment there will be used.

Q Would it be a fair thing to put those two plants into the rate base at 25 per cent of their value?

A And not charge for the steam delivered from them to the Valley Pipe Line Company and Royalite?

Q They would be charged on the reduced basis.

A Well I do not get your reasoning for suggesting that the valuation be reduced to 25 per cent of the observed.

Q Well would it be fair to have the value of them amortized over a short period of time, say 10 years?

A I do not follow your reasoning at all.

Q Well then they would be paid for by the time that there is a likelihood of their having very much greater capacity than is required under present conditions.

A No sir. You still do not follow me. By the time that the older boilers which have been valued at a very low figure, I forget what it is offhand, by Mr. Hill, go out of the picture, the Valley Pipe Line might as you say be going out of the picture. It takes quite a relatively small portion of the steam but there is no possibility of the steam plant and the scrubbing plant and that part of the equipment operating with the gasoline plant shutting down. So there would still be the same going on ten years from now.

Q You would still need it for the absorption plant, whether it is operated by Royalite or not?

A Very definitely.

Q I asked you to estimate what your pipe line replacements will be per annum. Did you make any estimate?

A That is included in the forecast we have got there for 1945 to 1948. We have shown we anticipate no . . . . . When I say it is included, it is covered by saying there is no item there at all for replacement of lines and we have no reason to say that we will replace any line whatsoever.

Q How much pipe are you carrying in your inventory as part of your working capital?

A I cannot quote you the figure offhand but it is a very small amount and such amount as there is, is . . . . .

Q Well I find Line Pipe Nipples and Steel Tubes, $14,410.

A Well the steel tubes are not pipe line. The steel tubes are replacements for coolers and condensers and heat exchangers. As we have shown in our estimates we anticipate some replacements each year.

Q And how much of that is pipe?

A Well I could have it segregated for you but I cannot tell you offhand.

Q It is not segregated here.

A We could have it by the end of the recess this morning.

Q Yes, all right. There is just one other question. I think you said yesterday, Mr. Stevens-Guille, that the additional cost of the operation by reason of using the Seaboard and the Girbotol would be about $7,000 a year. Was that the estimate?

A $7,000, between 7 and 8 thousand dollars is our estimate at the present time.

Q Yes. Now in fixing a rate base would you agree that that

should be capitalized?

A I have given that no consideration at all, sir.

Q You have not considered that at all?

A No, sir.

Q All right, that is all.

THE CHAIRMAN: If you did capitalize it, how would it be done?

MR. HAMILTON: By deduction, sir.

THE CHAIRMAN: By deducting what?

MR. HAMILTON: Capitalize the values for say 25 years at $7,000 a year with certain interest rates and deduct that from the other value.

Q THE CHAIRMAN: Do you follow that? I suppose you do, Mr. Stevens-Guille?

A Well that is outside of the business that I have had my attention directed to. Before I came in this Hearing 12 months ago, I hardly knew what a rate base was.

MR. BLANCHARD: I do not know if this is the last we are going to see of Mr. Stevens-Guille, that is in the box.

A No sir, I presume I will be putting those figures in you asked for when we have completed that study. Not the ones today but our reconciliation of our estimates.

Q Then I will postpone my compliment until then. I was just going to say I think the Board and all of us owe Mr. Stevens-Guille a debt of gratitude for the indispensable contribution he has made to this hearing.

A That is very kind of you.

THE CHAIRMAN: And the Board wholeheartedly agrees, Mr. Stevens-Guille.

MR. BLANCHARD: Not that we all agree with what he says, sir.

MR. CHAMBERS: We take that for granted.

A And perhaps I may not in reading it, Mr. Blanchard.

Q MR. STEER: May I ask just one question about Exhibit 121? What I was trying to get at, Mr. Stevens-Guille, was the amount of gas that was going to be saved from this whole field by reason of the construction of the facilities that have been constructed since this Act came into operation. As I understand by Exhibit 121, what you have given me there is the gas that has been added to the Madison Plant by reason of such construction.

A By reason of the construction or extension of the line into sections 17 and 18. That was my understanding of what the outcome of your remarks with the Chairman at that time were as to what you wanted.

Q The line was extended by Order of the Board into Sections 17 and 18, was it?

A No, there was actually no Order. It was with the concurrence of the Board.

Q THE CHAIRMAN: And agreement with the Home Oils?

A Yes, which has been entered as an Exhibit.

Q MR. STEER: Yes, exactly. In addition to that there were certain gathering lines that were constructed under Board order subsequently.

A That is correct.

Q And the volume of gas coming through those lines is not included in this figure.

A Very definitely not, sir. Only the ones from sections 17 and 18.

Q And if we want to get the amount of gas that is added by reason of the scheme being put into operation we have to take this figure of 11 million and then we have got to take the gathering lines that were constructed by Board order leading directly into your Madison scrubber through the absorption plant.

A That would be correct.

Q And that is all that we have got to add in the North end of the field.

A Yes. I do not see any other thing at the moment that you should consider.

Q Then we have got to go to the South end of the field and we have got to compute the amount of gas that comes from the B.A. flare, the G.O.P. flare and the amount of gas that comes from the B.A. low-pressure system.

A That would sound correct.

Q And if we add those altogether then we get the volume of gas that is added by reason of the scheme, do we?

A That would sound right.

Q Now I have not omitted anything that has to do with your Number 3 Compressor Station. That Number 3 Compressor Station is not linked up with the G.O.P. operation is it?

A Only through pumping the residue gas which you referred to as the G. & O.P. flare.

Q THE CHAIRMAN: Would it not also be fair, Mr. Stevens-Guille, to add to that the amount of gas which you get from wells which were connected up in anticipation of the legislation and the Board order.

A Which ones are those, sir?

Q Well I am asking, I do not know. I understood some witness from your Company or from Royalite to suggest a lot of these

things were being done anyway whether the legislation had been passed or not.

A It would not necessarily be in anticipation of the legislation if he said they were being done anyway.

Q Then I withdraw that.

A You might refer to something with which I am not familiar.

Q DR. BOOMER: I think Mr. Blackstock means something entirely different. If I understand Mr. Steer correctly, he is trying to determine the amount of gas that is being saved as a result of Board orders or the extensions due to Board requirements.

MR. STEER: Formal or informal.

Q DR. BOOMER: Is it not true that regardless of the existence of the Act many of these gathering lines would have been put in in the North system, Royalite properties would have been put in in the natural course of events anyhow?

A Some might.

Q Some?

A It is hard for me to say offhand now because consideration was not given that way.

Q You gave consideration surely to the extension of your gathering system before and since this Board was formed.

A Yes but not to the final points as to whether we would have done it without orders, as far as I am concerned.

Q Yes, I agree with you, but the set-up of the figure that Mr. Steer is trying to find is not necessarily comparative to what would have happened if this legislation had not been passed.

Q THE CHAIRMAN: In other words you cannot say you

spent X dollars and got Y cubic feet of gas that was not worth it. At least I think that is what Mr. Steer is ultimately going to suggest.

A You mean that the method he is suggesting would give too much credit or discredit to the Board?

Q No, to the legislation and not to the Board.

(Go to page 3487)

Q I suppose if we get the formula that Mr. Blanchard has asked for considerations that would lead to connecting or not leading up to the connecting of wells, we would have something along the line that Dr. Boomer has suggested ?

A I do not think there is one ubiquitous formula that can be applied to all these things. There is always a large consideration of things in each individual project.

Q How much gas is connected up subsequent to the coming into force of this Act with the Home well, a large volume ?

A From the Home wells ?

Q Yes.

A Well you have it in front of you.

Q That is the Home Millarville ?

A That is the Home controlled wells in sections 17 and 18 which were connected up after.

Q That is the gas, natural gasoline content compares favourably with all the other gas in the area ?

A Taking into consideration the operating conditions of the wells, yes.

Q And if a contract could have been made between your Company and the Home Company to get that gas through your absorption plant on the terms of the ordinary contract there is not any doubt that that gas would naturally have come in ?

A I cannot go so far as to say there is not any doubt.

Q The likelihood is that it would ?

A Yes, I think it possibly might have.

Q Your #1 plant,you told us its capacity yesterday and the way it is normally operated it would have considerable excess capacity would it ?

A For this crude oil gas ?

Q Yes.

A Well this crude oil gas would displace gas cap gas currently in the process. It means that more gas cap gas would have to be shut in and carried for a longer time without getting through.

Q But I am talking now of the absorption plant only.

A Yes, I am referring to that, the effect of connecting this crude oil gas for example here on the absorption plant so as not to increase the volume of gas processed to the absorption plant except to the extent there was extra gas to repressure during part of the summer. It was largely a matter of shutting in gas cap gas in proportion.

Q That is by reason of the fact that the Royalite Company had decided prior to this Act that was the way in which they were going to operate, but I am asking you now to overlook any question of residue gas and to consider the absorption plant operation only and I am suggesting to you that the absorption plant operated as such would at all times have welcomed any such additional volume of gas as this that could be got from the Home wells ?

A Flaring of the residue ?

Q Yes.

A Oh it had the capacity, yes.

Q Quite so, and I am suggesting to you that the likelihood is that in the normal course if a contract could have been made between Royalite and Home that gas would have been led into your #1 plant ?

A And the residue flared ?

Q Yes.

A No, I do not think so at all Mr. Steer. The policy of the

Company has been for a number of years not to do that and I do not know why they would change that.

Q I am asking you to overlook that for a moment and tell me what you would do normally in this operation of the absorption plant if you were free to flare gas ?

A Oh yes if you disregarded the policy, yes.

Q Now in this Exhibit 123, there was noticeable here a distinct increase in the number of wells connected up, we will say between the years 1934 and 1936 and the following years and that I suggest must be due to the discovery of crude oil ?

A Well actually as I told you yesterday, Mr. Steer, I do not think I am incorrect in stating the first crude oil well connected to the gasoline plant #1 was in 1939. I have not checked my memory since yesterday, but I think that is true, so the wells in 1936, 1937 and 1938 are certainly not due to that.

Q I wonder if I am interpreting this Exhibit No. 87 correctly. You will remember that Exhibit of course ?

A Yes.

Q Am I right in thinking that that list which is first given there which is called "Crude oil gas", that all this volume of gas came from crude oil wells that must have been drilled subsequent to 1936 ?

A Yes, that is correct. Every well in that has been drilled since 1936.

Q And were they all connected up to your plant ?

A They are now, yes.

Q Were they shortly after they were completed ?

A Not in all cases, no.

Q Subsequently, eventually they were all connected up to your

plant ?

A Yes, this is an actual list of the wells that delivered to the plant in May 1945, these specified volumes.

Q Am I right in thinking then that the addition to those crude oil wells, the wells connected up to your absorption plant #1, is the second list of gas cap wells ?

A That is correct.

Q And no others ?

A No, this says gas cap allowables. Some of these allowables have been grouped.

Q I am interested in the wells themselves only and what I suggest to you is that Exhibit 87 tells us how many crude oil wells were connected up with your plant and secondly tells us how many gas cap wells were connected up with your plant ?

A No. That is what I was trying to explain to you. It does not necessarily tell us the number of gas cap wells connected. It gives here the gas cap allowables and in some cases those gas cap allowables are grouped so it is not necessary that this list is synonomous with the number of wells connected.

Q So what you say is that while you have given the name of one well the allowable for that well may represent the allowables for several wells grouped ?

A That is correct.

Q Would it be much of a task to let us know just what the names are of all the gas cap wells that are connected up ?

A That can be done. It is probably on file in the Conservation Board at this date.

Q But it is so much simpler for the man who is familiar with it. I do not know.

A If we supply you with that there is no need to enter it here ?

Q No, let me have it and I will make such use of it as I see fit. If I want to put it in as an Exhibit I will let you know. Just to make myself clear about this Exhibit 122 I was talking to you yesterday about a figure ?

A Mr. Steer, before you go on to that, you have a copy of our gas gathering map and on it is shown every well connected to our gas gathering system. That copy was filed with one of the earliest Exhibits.

MR. CHAMBERS: I would suggest if you cannot find it to let me know.

MR. STEER: It struck me, Mr. Stevens-Guille could give it to me in five minutes and if he cannot we will dig it out ourselves.

Q Now in regard to Exhibit 122 I gave you yesterday a figure, this is with regard to the gas and oil products ?

A Yes.

Q I gave a figure of delivered to Madison from the Conservation Board report 960,739 m.c.f. and your suggestion from this Exhibit 122 is that figure ought to be 786,091 ?

A That is the actual figure off our records Mr. Steer.

Q Now if I am right in saying that the Conservation report shows 960,739 m.c.f. -

A Would you repeat that.

Q I am instructed that the Conservation Board report shows the quantity of gas delivered to Madison January to July 1945 as 960,739 m.c.f. ?

A 960 -

Q Yes, 960,739 m.c.f.

A Is that the volume delivered or the volume available for delivery ?

Q Well I have it given to me that is the amount delivered.

A Well I do not think that can be correct because this was taken off our accounting books yesterday.

Q Well we will have to check that.

DR. BOOMER: Mr. Steer -

MR. STEER: I beg your pardon ?

DR. BOOMER: The Board started to work yesterday and it will take some days to give you the statements month by month for all the systems over all the Valley and you might have it by next week. They will include Madison, the G. & O. P., the B. A. and the individual wells.

MR. HARVIE: Did you say by individual wells.

DR. BOOMER: No,by areas as far as it can be done. It is not very simple.

A Well will that be a general publication so we can get a copy and use it ?

MR. HARVIE: I think it would be very useful information.

CROSS-EXAMINED BY MR. FENEPTY:

Q There is a question or two Mr. Stevens-Guille. You will remember that there was an Exhibit 84, an agreement between the Home Oil Company and the Madison Natural Gas Company dated 18th September 1944, put in evidence. I have not got it here at the moment, but do you happen to know how many of the wells covered by that agreement are referred to in Exhibit 122 ?

A Offhand I believe all the five wells enumerated there. There may be others in the agreement which are not delivering gas.

MR. CHAMBERS: They are listed in the agreement which is filed.

A Mr. Chambers says they are listed in the agreement which is on file.

Q MR. FENERTY: And you will perhaps remember when the agreement was discussed it was pointed out in evidence that there was a provision in it for cancellation by the Home Company ?

A That is correct.

Q And I think the evidence indicated that so far as the supply of market for the dry gas was concerned the gas available, that might be available, in the future under that contract would not be required for some years to come ?

A I do not follow that question.

Q In other words, there was plenty of gas to supply the market for 1945 and 1946 and for some years without the addition of the gas obtained from Home Oil ?

A A few minutes ago I answered Mr. Steer by saying the effect of that gas being connected, it was to shut in a proportion of the amount of gas cap gas.

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Q I understand that?

A Which is the same answer.

Q But I say, it is true, is it not, that the market could be supplied without that gas for some years, that is the question I am asking?

A Very definitely, yes.

Q And the practical effect, one of the practical effects of the contract is to provide for day by day, part of the day by day requirements of the Royalite Company's gasoline absorption plant? You get gasoline out of that gas that comes through there?

A Yes, but we do not get more gasoline, we get gas, at least the Royalite gasoline plant does.

Q You get more than if that weren't tied up?

A Yes sir, except the amount that that has in volumetric effect on the quantity repressured. The gasoline plant does not process any more gas. It processes the same volume and the gas is leaner, and it produces less gasoline from it.

Q It is leaner, is it?

A That is correct.

Q And you say it does not process any more gasoline because it, as a result of this, is not drawing on the gas cap wells?

A That is correct.

Q I see. And then you have to repressure the gas that you receive from those wells?

A A proportion of those wells, because of the addition of those crude oil wells during certain months in the summer it has to be repressured.

Q That is right?

A Yes, that is right. But over twelve months the volume of gas-

oline produced by the Royalite gasoline plant, because of the connection of those wells, is not great.

Q And you say as long as this contract continues in force it operates to conserve the gas cap?

A Definitely.

Q That is about the way it works out?

A That is correct.

Q That is right?

A That is correct.

Q With less gasoline from this particular gas than would have been available from the gas cap?

A That is correct.

Q Thank you.

THE CHAIRMAN: Have you anything further, Mr. McDonald?

MR. McDONALD: No.

THE CHAIRMAN: Mr. Harvie?

MR. HARVIE: Nothing.

.....

EXAMINATION BY DR BOOMER.

Q Mr. Stevens-Guille, let us go back to the gathering lines. Do you study the economics of the installation of the gathering lines for Madison?

A No, we have made no study as to the over-all economics.

Q Let me put it this way, if you are drilling an oil well at Turner Valley and you bring it in, do you automatically connect up the gathering lines to it or do you consider the dollars and cents before you connect it to it?

A Well, as I mentioned to Mr. Blanchard, the rule of thumb, this mystical formula, was that if the line ran close to that

well and, therefore, the capital investment was small, it would be connected.

Q What do you mean by close and small?

A Oh, I would be thinking of up to a mile of line, but most of the wells that we have connected run on much shorter laterals than that, a matter of a few hundred feet up to two or three thousand feet.

Q Does it make any difference if the well has an allowable of half a million feet a day or a million feet a day?

A Well, that has a dual effect there. One is that a small line can be installed, if a smaller line can be installed, the investment is, therefore, less. That, of course, is seen as the figures are looked at for the distance and size of pipe required.

Q You do put down figures and you do study it?

A We have always put down the volume to get the size of line in the first place, and then naturally have to put down the cost of putting down the line for the ordinary expense purposes.

Q And do you decide whether or not it is a profitable operation?

A Each increment, no sir.

Q Do you advise the management as to whether or not certain gas lines should be put in?

A On the basis that I have outlined I suppose it can be said that I have offered advice, yes sir.

Q But you have not told me what the basis is except in a very vague way. I want to know if there is any precise basis. What rate of write-off of the capital do you allow, what salvage galue do you allow, or do you consider those things at all in considering it?

A No, no detailed study on just connecting up these additional

wells has ever been made to my knowledge on that basis, or the small additional cost to the total investment as such. There has been no complete survey ultimate result in the total investment would be

Q Do you take into consideration the result in the immediate future, say a year?

A You say the result. In what way do you mean the result?

Q The revenue, first, and the capital and operating costs?

A In other words, if we made a short time study rather than a long time study, that we have been just discussing.

Q Yes?

A No, not in that way.

Q Well, let me give you a specific case, You have 2000 feet of four inch line laid to the well to get the gas, would it be profitable or would it not, or do you consider that question of the profit and loss?

A Not taking it out to the final profit and loss. If it is a question, as I have explained here before, of whether it would be profitable to go into a new area, a low pressure area particularly perhaps, then the cost of the gas per MCF has been studied, and that is how we have come to the conclusion that it was too costly and not done.

Q THE CAIRMAN : That would all lead me to think, Mr. Stevens-Guille, that you do hot make these detailed estimates of capital, operating costs, and so on, that the need for natural gasoline is paramount to the question of repayment of your capital costs or operating costs of those gathering lines?

A No sir, in the last few years I would say that the paramount consideration has been the fact that we could not, I am

talking now of Royalite, could not meet the market requirements under the restrictions of the Brown Plan, and then went out, - and the conslidation of Number 2 with Number 1 plant, and the installation of Number 3 is an example, - to get enough gas to protect the contract we then had with the Canadian Western to supply it.

Q Is it true that different economic factors would apply to a line that was used only for the purpose of getting gasoline, and a line that was used only for the purpose of getting the natural gas. Different economic factors must necessarily apply to those two, Mr. Stevens-Guille?

A Well, there would be different revenues available from them, therefore it would enter into the economics.

Q Are you not in the position that when Madison proposes to build a line to connect up to a gas well, that you have to consult Royalite as to the economics of that line, isn't that right, when it is a question of getting gasoline and one for getting natural gas. I might be quite wrong.

A At the present time it is a question of whether we are ordered to put in the line or not.

Q Suppose we have to say to you, "We are not going to give you an order, that is a matter for you." And then we say to you if you make a foolish expense, that we will not allow it, and if you make a prudent investment we will add it to your rate base.

A In actual practice that is not the way we have been instructed to lay the lines.

Q We have indicated to you that that might or would be done.

MR. CHAMBERS: If the company refuses an order will have to be made.

THE CHAIRMAN: That is a different thing. Quite. All right, Dr. Boomer, I am through.

DR. BOOMER: And I am confused.

Q You are the field manager of Madison?

A Field superintendent, yes sir.

Q And if a well comes in you make the decision, or at least advise on whether or not to put a line through to it?

A I work up the information, the size of the line that would be required, the volume that the well is producing and the length of the line and I submit the information.

Q And the cost?

A And the cost of laying the line.

Q You do not consider the revenue side of it?

A Well, you say you are confused, Dr. Boomer.

Q Oh no?

A Let me go back and say this, that on small connections, short distances, there have not been worked out the complete end results that you are talking about. On other projects like whether we should go and collect gas from low pressure areas where there is a large investment, that has been done, and, as you know, the recommendation for that investment has been put to you to authorize that expenditure. And we have stated here that on several occasions we have not recommended it for those reasons. We have done it on the basis of the cost.

Q Let us assume that there is such an instance, where there is a possibility of you going into the whole area and getting the gas, and you study it, you come to the recommendation either for or against, do you as Madison consider from the revenue point of view those factors or those incomes for residue gas and the volumetric proportion of the natural gasoline, and

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those solely?

A We have not made any studies since this set-up was made of that nature, no.

Q Well, if you are accustomed to make such studies, what factors would you take into account in looking at your revenue?

A What type of factors do you refer to?

(Go to page 3501).

Q DR. BOOMER: Well what revenues would you look at ?

A Well we have two revenues, as the Chairman pointed out, we have the revenue from the residue gas and the revenue from the natural gasoline.

Q And the revenue from natural gasoline to Madison would be the payment by Royalite, on what basis ?

A You refer now to what Royalite would pay Madison for the gas gathering ?

Q Yes.

A Well on the present submission on the volumetric basis.

Q And if the operation looked unprofitable to Madison on that basis it would stop right there even though on the overall basis that was being considered before Madison was formed, it would be a profitable operation ?

A Well such a situation has not arisen so we are in the realm of hypothesis.

Q Yes I know, this Board has to be in the realm of hypothesis in dealing with the Company ?

A I cannot say what would be done, it would be a matter of open discussion.

Q And would Madison, would it be justifiable of Madison for it to go to Royalite and say "On the volumetric division of gathering costs plus our revenue from residue gas the line is not profitable and instead of taking the volumetric basis for the division you give us half, or use the weight basis and it will be profitable to us," that is "let us charge Royalite all the traffic will bear", would that be reasonable on that hypothesis ?

A Well they might put it up but I cannot say what viewpoint would be taken on it by Royalite. It sounds to me like a

commercial bargaining basis.

Q THE CHAIRMAN: Forget about Royalite for the moment and consider yourself as an Engineer and if I may say so, a very good one, and supposing the Board decided that a certain gathering line was unprofitable because of its revenue and that the people of Calgary should not be called upon to pay the capital costs and the operating costs of that line and said to Madison "We are going to deduct that line from your rate base", now then as an Engineer, Mr. Stevens-Guille, if you are advising the absorption company to which that line leads, would you say to that absorption company, "I think you had better take the line over because the gasoline is worth operating the line for that alone" ?

A Yes, but sir, the Royalite would not gain anything by operating that line.

Q Forget about Royalite, I am asking you as an Engineer advising the Company that is in the absorption business; under those conditions where the line is not profitable and the Board says it is coming out of your rate base, would you, as an Engineer, advise the absorption company to continue the use of the line in order to recover the natural gasoline ?

A Well to advise them to do that I would have to know their whole operating conditions. They are certainly not going to take over a line if they are going to lose revenue from it.

Q All right, but supposing you then said to the absorption company, "I advise you to continue the operation of this line for the recovery of natural gas", then that residue gas would be available for the Gas Company and you would expect the Gas Company to take that over on a basis, would

you not ?

A That is a point I was going to ask you.

Q I am glad I asked you first, Mr. Stevens-Guille.

A They would therefore have to collect the gas gathering cost from the gas business.

Q That is right.

A Well then - -

Q So that definitely there should be a proper allocation of those two things with relation to revenue ?

A Yes, but if I follow you and Dr. Boomer, what is going to happen is, you are going to take this line out of our rate base and then the gasoline plant is going to operate it and they are going to charge the gas consumers the same rate presumably as the gas business would have absorbed before. Anything which is added to the gasoline plant is the capital costs of the line and then since, what happens, they do not get any current revenue against the gasoline production. It might pay them but I personally would not be in a position to say "Yes" or "No" on a computation like that.

Q It is not as simple as sales realization, weight or volume, is it ?

A I do not think it is. Mr. Donellan made it very clear that a sales realization is not simple.

Q And indicates that there might still be another basis on which the allocation might be made ?

A Well I cannot quite grasp the advantage to the gasoline plant because it is not going to get any more current throughput. It is only going to have other gas shut in.

Q But if the gathering line is taken out of the rate base, then it loses that much gasoline, does it not ?

A Not currently. Gasoline ultimately. Other gas comes in to displace the gas which would have been travelling in that line to supply the market.

Q DR. BOOMER: It will change your sharing position ?

A Oh, now we are getting into the producer's end of it.

Q Yes.

A Yes, it changes the sharing position also. It changes everything, as any other change in assumed conditions.

Q Be that as it may; another question I want to ask you before we adjourn, I was very interested in the discussion regarding the hazards of incomplete recovery of repressured gas, I think you said it would be something like 5 or 10% or that order ?

A Yes.

Q Where would that 5 or 10% of gas go ?

A Well as I pointed out yesterday, Dr. Boomer, I have not given that any specific study. I pulled that figure out of the air.

Q Never mind that.

A And my thoughts at that time were just these, that there are two ways that gas can be dissipated, - there may be others I have not thought of, - one is that there can be migration to wells which are not connected to the plant in which case that gas is lost ultimately to the market and there is also the possibility of loss of gas due to defective casing of wells, which might be torn out, breaks in lines, blowing down wells to fix them, and such items as those.

Q Mechanical losses due to leaks or to other causes of a mechanical nature and migration losses ?

A That is right. It was just a personal figure on my part, Dr. Boomer, and I do not know whether you agree with me or not.

Q I quite agree with you and I cannot think of any other losses

but with your particular system would you care to estimate the magnitude of the mechanical losses ?

A Well I have not studied it beyond that figure which I pulled out yesterday from the air. 5% might cover it.

Q The mechanical losses due to leaks and so on 5% ?

A Oh no, not currently, no. You mean the current leaks going into the system and not the hazard of well casing leakings or having to blow a well down to fix it and such as that.

Q I would include all those as mechanical losses, well repairs and so on and I want to separate your losses into the two kinds, losses by migration and losses due to overall mechanical losses such as leaks, defective wells and repairs to wells, which is the major hazard ?

A Oh the major hazard I would imagine to the extent of my 5% I would put say 3% offhand to migration and 2% to the others, but as I say I have not made any study of those so you are asking me to pull rather close facts out of the air.

Q You think migration is liable to be more important than all the others ?

A Well as I told you I am not giving you a considered opinion because I have not sat down and studied it.

Q You have not looked at the changed pressure contours in your gas cap or in the British American gas cap ?

A I have just seen them.

Q You have not had a chance to study them ?

A No, you mean the data recently produced by the Board ?

Q Yes.

A No, I have not read it. I have seen it.

Q Assuming that migration is the important part of the loss, would you expect the ultimate recovery of gas from the field

would reflect any losses due to migration, the field as a whole I mean, - I admit Madison may lose some by migration which G. O. P. would gain but would there be an absolute ultimate loss due to migration ?

A That would only result from the point I mentioned, of migration to the wells which are not connected to the gas gathering system. If they are connected to the gas gathering system it will be recovered through those others.

Q The number of wells not connected are relatively very small ?

A Well that depends on a study of the area and that is why I would not commit myself yesterday to specific statements, as I have not studied the relation of wells not connected, to the other wells.

Q You are not referring to gas cap wells which are not connected?

A Oh no, they are not producing.

THE CHAIRMAN: I think we will take our adjournment now.

(A short adjournment was here taken)

(Go to Page 3507)

Q In your operations in Turner Valley is the compressor plant that brings the gas up to 300-odd pounds per square inch before the gas goes into the absorption plant necessary because of the absorption plant or because of the Canadian Western requirements.

A In the first place necessarily because of the Canadian Western requirements. The contract had a clause in it holding us to a delivery pressure of 300 pounds and in view of that the absorption plant was naturally designed to operate at that pressure.

Q Suppose the Canadian Western looped their line so that they could operate with less than 300 pounds per square inch at the Valley would that affect your absorption plant?

A If there was an appreciable decrease in pressure some increase in equipment would be required to give the same recovery as is being obtained today.

Q The increase in the equipment would be in the way of pumps rather than more towers.

A Probably not more towers but an increase in the circulating rate. Whether there would be an actual increase in pumps on account of this reduced capacity I cannot say offhand but it would depend naturally on the amount of decrease in operating pressure.

Q Would the reduction in the pressure required reduce the amount of compressor capacity that you will be putting in in the future?

A To the extent that it increases the capacity for horsepower, yes, whatever that extent might be. But whether it would break into unit sizes and mean one less unit or not again would depend entirely on the extent.

Q In some of your statements and in some of the evidence the

term plant vapors has been referred to.

A Yes.

Q Would you define it for me?

A That is the portion of the wet gas that is absorbed in the absorption oil at the same time as the hydro-carbons are absorbed that ultimately appear as the natural gasoline. These vapors are a composition which cannot be included in the liquid product and therefore are rejected in subsequent stages of the process before the raw gasoline has been stabilized to specifications for the market.

Q Who owns those plant vapours? Is there any reference in your contract with the producers?

A I do not recall offhand a specific reference. I might be overlooking one.

Q Does it belong to the Madison, Royalite or the producer?

A The producer.

Q They are merely flared.

A They are flared.

Q Have they no value?

A Not under the present market.

Q You are talking about the Royalite operation and not the B.A. at the moment, I presume. You say it is being flared?

DR. BOOMER: Yes.

Q Another point . . . . .

A One moment, Dr. Boomer. I have been thinking. I think they would be specifically covered in the contract as part of the plant shrinkage and the use of what is necessary to operate the plant. They are included in that total. The exact wording I cannot recall at the moment.

Q You mean in the data as plant balance, these plant vapors

appear under the name plant shrinkage.

A There is a table in that contract showing the shrinkage for gases of different g.p.m. values.

Q It does not say anything about the ownership of them.

A Well the gas up to that stage has been accepted for processing. The gas has not been purchased. Then the sale of the gas apart from what has been extracted in the plant is made of the residue gas which is covered specifically.

Q THE CHAIRMAN: That is the product that arises from the processing of the gas.

A Which is covered in this table, Mr. Chairman, which makes due allowance for the different amounts of shrinkages and different kinds of gas.

Q I suppose that is really a question of interpretation of the contract as to who owns them but today if a producer came and asked you for delivery of the plant vapors and made suitable arrangements for getting them would you give them to him?

A Well in view of the point you have raised I do not think I am in a position to answer that. There may be a legal point there that I am not conversant with as to who ownership is in.

Q Let us assume that they are the property of the producer. I assume that they are still some form of hydro-carbon are they?

A Together with a considerable quantity of sulphur.

Q Do you know of anything that can be made from them, any use that can be made of those plant vapors?

A Not commercially in Turner Valley.

Q Has anyone ever tried to buy them?

A No sir, not to my knowledge.

Q DR. BOOMER: Do you know of any gas cap wells that were shut down or suspended or abandoned for lack of a market?

A Richfield 2. No, we purchased that afterwards. I am wrong there. I do not recall any offhand.

Q The Merland well was abandoned or shut down, do you know the reason for that?

A Merland Number 1. No, I have not followed that since Royalite disconnected from that what happened to it.

Q Why did they disconnect?

A That is on the closing of gasoline plant number 2.

Q I am going to give you a hypothetical proposition. Another hypothesis. We will assume that further sources of crude oil are developed to the point where there is to be prorating of the market among fields, the consequence of which is that crude production in Turner Valley is reduced to such a point that the crude gas plus the Brown Allowables of your gas cap are insufficient to meet the market and in order to meet the market you have to raise the production from the gas cap above the Brown Allowables. Would all producers be justified in demanding a share of - I do not like to use the word, compensation for your over-production of the gas cap on the theory of damages?

A It sounds like Mr. Steer's common container.

Q Yes.

A Well to my mind it has first got to be proved that the production of that gas above the Brown Allowable has affected any well.

Q Well let us assume that it does.

A If it does I imagine the producer might have a good case to the extent that he could show that the gas which would have lifted his oil and was under his lease was drained by virtue of the fact that these gas cap wells were opened above the Brown Allowable, yes.

Q Would it be possible to avoid such conflict if the producer became entitled to the gas that is conserved and repressured in the gas cap. In other words, if you opened the gas cap he would be sharing your production.

A It would then depend, Dr. Boomer, on the quantitative figure above the production of the amount of repressured gas in the gas cap.

Q I do not follow you. I am assuming of course that crude gas is insufficient to meet the market, and you have to over-produce the gas cap and if the gas cap is made up of your gas plus conserved and repressured gas of all other producers, as soon as you pass the Brown Allowables in order to meet the market surely the producer is sharing in that reproduced gas.

A Of course at that time there will be no gas being repressured. It would only be a question of the gas that had been repressured at some prior time. Then I am saying that while that could be taken into account there will come a time when all that gas has been reproduced. You would therefore have no more equity.

Q I probably put that badly.

A There would only be so much gas repressured.

Q That is true.

A And then there would come a time when that volume of gas

was exhausted and the equity would therefore cease.

Q THE CHAIRMAN: But you have been asked to assume that instead of Royalite buying the repressured gas at its present worth.

A Yes.

Q That the title to the gas was retained by the man who produced it. Then when these wells were opened above the Brown Allowable there would be some of the producers' own gas that was being produced in excess of the Brown Allowable. Would not that create a much simpler situation than the one presently contemplated?

A The one presently contemplated does not take into account Dr. Boomer's other hypothesis. But I think it might. I have not studied all the ins and outs of Dr. Boomer's hypothesis but it might up to the extent that this repressured gas volume met the increased requirements. It certainly would have to be given consideration.

Q DR. BOOMER: I will leave that. I want to go back to Mr. Hill's evidence in which he referred or recommended a sum of money as going value and he gave a variety of reasons for it, the principal one or at least one of them being the service Madison gets from its affiliated companies such as Royalite and Imperial. Does Madison get engineering services from Royalite or Imperial or both?

A In the shape of consultive advice, yes.

(Go to page 3513)

Q Do you pay for them?

A No.

Q I believe one example he mentioned was the services of the Purchasing Department of these senior companies, you do get the services of the Purchasing Department, do you?

A Yes.

Q Free?

A Oh no, we pay for the services.

Q Do you think that the services you get of an engineering nature, and the purchasing, are of value over and above what you pay for them?

A Oh definitely. If the value, in the case you have just cited, the purchasing Department, we have a large Purchasing Department down in Toronto with connections with all these large manufacturers and undoubtedly we get better attention from that point of view.

Q Then is it not so that if Mr. Hill's figures for going values are admitted, that figure plus what you pay brings you to the position where you have no advantage through your connection?

A I do not follow that.

Q Supposing we take Mr. Hill's figure of going value, which has a reward for the good service you get from Royalite and the Imperial, and you also pay them something, maybe merely out-of-pocket costs to them, but if you add those out-of-pocket costs to Mr. Hill's figure of going value, surely that wipes out any advantage you had in this connection?

A No sir, the only out-of-pocket costs are the Purchasing Department. We do not pay out-of-pocket costs to any other engineering or consulting advice or anything else.

Q Oh, I understood you to say you did pay for engineering services?

A No.

THE CHAIRMAN: No, only for the Purchasing Department.

Q DR. BOOMER: I am sorry, and knowing the Company's concern, do you believe that Mr. Hill's going value is a fair estimate of the value of the services which you get?

A Dr. Boomer, I have never had any experience in estimating going value or seeing them estimated in any other way so I am not in a position to say.

Q You have the knowledge of the costs of engineering services?

A Well I have no idea how much they should be charged for, they are usually at high rates for consultation, but what they would come to, I do not know.

Q I may have got the wrong impression from Mr. Hill's evidence, but would you agree with me that a great deal of your equipment and especifically your pipe lines, are of such a quality that they will give a life much in excess of the service life in the field?

A Well, Mr.Hill's evidence was that they had a life, I think he put it at 50 years, and the actual life of the project supplying this Canadian Western system completely, we have estimated to be in the neighbourhood of from 25 to 30 years and, as Mr. Hill points out, that would not necessarily be the end of the project, so you have something still to consider passing through those lines during the remaining 20 years.

Q Do you mean that all these lines will be in use to the end?

A Well, as your well pressure goes down, your line size has to go up to move the same volume through them unless you put in more equipment. It is a matter of balancing.

Q If you were going to reproduce the system from the beginning,

would you put in the same high quality?

A From the beginning?

Q Reproduce the system as it stands, - given another gas field of the same type and told to reproduce it?

A With the same pressures, yes.

Q You would put in, build the same life into your lines as you have built into your lines in Turner Valley?

A Yes, I think so. You have to have that quality pipe for the operations.

Q I am not referring to the thickness of the pipe, you wrapped them and made a very good job of them.

A You do not mean the quality of the pipe?

Q No, the quality of the pipe line, the pipe line as a pipe line?

A You mean that we are wrapping it?

Q Yes?

A Yes, we would, we are still doing it today and for this reason, perhaps I might add, that you cannot tell otherwiwe whether you may get what is generally called "hot spots" and you may get a break in the line and then you lose some of your services, and I might point out, Dr. Boomer, that was the policy of Royalite and it had nothing to gain by it, and we still believe that is the best policy to follow.

Q I spoke to Mr. Mercer about the consideration that an oil company gives when they begin to explore by drilling any unproven territory and asked him if they gave consideration to the probability of getting a dry gas field or a wet gas field or an oil-gas field or just an oil field which had to be pumped, and you made a remark about it Monday I believe, is it common practice to take into consideration all those possibilities in laying out a program for the future, that is

do you consider the occurrence of gas with your oil from an economic point of view, or do you base everything on oil?

A Well I cannot answer that because I have never had the job of making up such a program.

Q Would you personally?

A If I were drilling in an area, Dr. Boomer, where there was an obvious market for gas and no gas available for it, I would certainly take into account the possibility of being able to supply that market.

Q Supposing there was no market in sight for gas, what would be good present day practice with regard to a consideration of the occurrence of gas with your oil?

A Then you have to face the issue, that there is no hope of him getting any revenue from that gas and the project would have to live on the revenue from the crude oil.

Q And you would flare the gas?

A Not necessarily. You might repressure the gas.

DR. BOOMER: I think that is all.

Q THE CHAIRMAN: I think it was you, Mr. Stevens-Guille, earlier in the Hearing who stated that the late Mr. McLeod was very insistent upon excellence of engineering design, did you say something along those lines?

A To the extent, I said, I was dealing there with continuity of service to the Canadian Western. was I not?

Q I do not remember but I remember you mentioning that.....

A Well that was the point I had in mind, and the point that he was insistent on.

Q Then who made these designs, the local engineers or the Toronto engineers? I mean who prepared the designs, who designed the equipment?

A Who decided what should be put in?

Q Yes?

A That would probably be a combination of both.

Q Well tell us how it was done, just tell us the mechanics of it, supposing you had to, - well you did in fact put in a line to Sections 17 and 18 and you also looped your lines along that route, now just tell us the mechanics of that, was that designed here in Alberta or was it designed in Toronto?

A The size of the pipe lines and so forth was designed here in Alberta.

Q And where were the plans prepared, I presume you prepared plans and specifications?

A Yes, that was done in Alberta.

Q That was done here?

A Yes.

Q Then do you send those plans specifications to Toronto for approval?

A You are speaking now of Madison's operations.

Q Yes, or Royalite's, you see you took over the Royalite plant?

A Yes.

Q And Mr. Hill added on $200,000.00 which Madison must pay to Royalite?

A Yes.

Q For those services; now my question was, do you send those plans and specifications to Toronto for approval?

A Yes, those have gone down to Toronto in most, if not every case.

Q Have you ever had a case where your plans were rejected and something else substituted by Toronto?

A Yes, I think we have had a case, yes, I know we have had a case where Toronto did not agree with the plans and the project was not proceeded with.

DR.BOOMER: A major or minor operation?

A I think, Dr. Boomer, it may have involved over $100,000.00.

Q THE CHAIRMAN: And is that the only case youknow of, one where your plans were rejected by Toronto?

A No, I think there have been others. That one I happen to have direct knowledge of but there are other cases in which they have been modified by Toronto, and suggestions have been made by Toronto. They have all been reviewed in that way.

Q But during all these years Toronto never made a charge to Royalite for those services?

A Oh, have I stated that?

Q Well perhaps I put it the wrong way, did Toronto ever charge Royalite for those services?

A I cannot answer that, I do not know.

Q If you wanted to reduce the working pressure of your absorption plant and continue to make the same product which you make now, you describe it in terms of pounds, I think?

A Yes, vapour pressure in terms of pounds.

(Go to page 3519).

Q THE CHAIRMAN: And can that working pressure be reduced as Mr. Donellan has described it at nominal cost and produce the same product as is now being produced ?

A With the volume of gas the same or not ?

Q I do not know. Mr. Donellan made the statement that the working pressure of an absorption plant can be reduced at nominal cost ?

A Having in mind as I understood him that the load to the plant in question would be a decreasing one.

Q He did not say that. He just said that the working pressure could be reduced at nominal cost, and then I asked him why he did not do it that way instead of building a low pressure system.

A Well it cannot be reduced without some further equipment being added if it is correctly designed for the conditions it is operating under at the time.

Q Let us assume you want to reduce your absorption plant working pressure to 150 pounds and still produce the products you are producing now. Can it be done at nominal cost ?

A A plant operating at 300 pounds, no I would not describe it as a nominal cost.

Q A good deal of this new equipment must go in ?

A Yes, depending upon the design of the plant.

Q And actually would it be cheaper to get this low pressure gas and compress it to the absorption plant pressure rather than to reduce the working pressure itself ?

A That would depend upon the specific conditions. There would be no general answer to that.

DR. BOOMER: Take your own case. How far can you reduce the pressure without going beyond such installations

as are needed for increased circulation. How far could the pressure be reduced in your plant and produce this product ?

A This Royalite plant #1 ?

Q Yes.

A I have never made a study of it at all Dr. Boomer. I cannot tell you the possibility of it as it has obviously not arisen.

MR. HARVIE: I cannot hear that.

A The probability of that happening has not arisen as the plant is tied to operate at 300 pounds so a study of it has not been made.

Q THE CHAIRMAN: I have the impression that as an Engineer of your calibre that you could give us some general idea. No one would wish to tie you down to a figure but would it be a nominal cost or would it be a substantial cost ?

A Well Dr. Boomer's question was as to how far we could reduce the pressure without having -

DR. BOOMER: Without doing more than increasing say the oil circulation rate and without say installing more absorption towers. What is the economic limit, 150 pounds ?

A Oh no they could not go down to 150 pounds.

Q 200 ?

A No I would guess, and mind you it is a guess, 250 pounds.

Q That is as far as you can go ?

A I would guess so but I would not want to be tied to that statement as you might correct the Chairman perhaps and say an Engineer could not make these estimates out of air on these things. It can be done by sitting down and figuring it out.

Q I am not asking you to give it to me within five pounds, but within twenty-five pounds if you can. If you care to do so.

A Even within twenty-five pounds is a pretty good guess.

Q THE CHAIRMAN: And would the same ratio apply to a plant that is operating at 150 pounds and wanted to go down. Would the same ratio apply ?

A Oh not necessarily, something of the same order. #2 plant was reduced in operating pressure from 200 to 150 pounds without adding any equipment but then of course the point comes up, is the plant entirely loaded at its present operating condition, how much leeway has it got on its absorbers, on its pump, and on its piping and so forth. It is not just a simple thing. There are an enormous number of things involved.

Q When it was reduced from 200 to 150 pounds is that the time you put in the new towers ?

A No. It was before that.

Q When you put in the new towers it was just a change of towers and the pressure stayed the same ?

A Yes.

MR. HARVIE: I am sorry I could not hear some of the answers given to the questions.

Q DR. BOOMER: Can you provide us with your load factor diagram for the last few years ?

MR. CHAMBERS: What is that ?

DR. BOOMER: A load factor diagram.

A We can prepare copies. We have no copies covering all the last few years of operation. We have only made them up specifically for any of these problems that we have produced for answers here. They are not in a form that could be submitted to anybody else. They are covered with my personal scribbling to arrive at certain figures here and there but would a typical load diagram be what you have in mind ?

DR. BOOMER: Yes, that would do. I am thinking of

the Royalite operation, not the Madison. I do not suppose it matters.

A Of the Royalite operation today ?

Q No, of 1943.

A I do not think I have got the load factor. The ones I referred to were made out forecasting the future conditions in order to produce these estimates.

Q You bring me a typical one of those.

A Of Madison ?

Q Of Madison.

A Madison scrubbing plant load factor diagram just for your own information or to be put into the hearing ?

THE CHAIRMAN: If it is given to us it must be available to everyone, Mr. Stevens-Guille.

A Just one month or any one particular month.

DR. BOOMER: Yes, I want to look at it. I may want more after I have studied it.

A Have you any one month in mind ?

Q No I have not, but the transition period now.

A We can supply with one for say August on the transition period, September 1945.

DR. BOOMER: Yes.

THE CHAIRMAN: Now is there any further cross-examination before Mr. Chambers re-examines ?

Q MR. HARVIE: There is one question arising out of one of yours. The Royalite absorption plant operates at a pressure of about 300 pounds ?

A That is correct.

Q And you are familiar with the B. A. absorption plant which operates at about half of that, 150 pounds ?

A Yes.

Q Are the products extracted from those two plants in spite of the different pressures at which they operate, similar products ?

A In general, yes.

MR. BLANCHARD: I was just wondering, Mr. Stevens-Guille mentioned he might have the figure on the value of the pipe in the inventory.

MR. CHAMBERS: Yes, that was the first thing I was going to deal with, but I think probably he should look at the statement. He has not seen it. The figure you have referred to is in an Exhibit.

MR. BLANCHARD: Schedule 7 (b) of Exhibit 74.

A I have a breakdown of that item you referred to in Schedule M-7 (b) and it is classed No. 64. There was $14,410.31. That I might say was the inventory in our warehouse as of November 30th, 1944, and from that $14,410.31, there is in the next column a deduction of $3,552.41 for pipe which had been ordered for a specific job and which happened to be passing through the warehouse books on the date of that inventory November 30th, 1944, leaving net operating and maintenance inventory in the third column of that Schedule of $10,857.90. Now that $10,000.00 odd was a total covering an assortment of pipe, the total inventory of pipe in fact from half inch up to sixteen inch also steel tubes as I mentioned and nipples and other fittings of a pipe line nature which are correctly put in that category. Do you want the length of the pipe ?

MR. BLANCHARD: No I want to know the value of the pipe ?

MR. CHAMBERS: Probably you had better let Mr. Blanchard see that.

Q MR. BLANCHARD: It appears that the value of the pipe in this breakdown is approximately $6200.00 ?

A Yes about that, I imagine so, I have not studied the figures.

Q And you propose that that amount be carried in your inventory from year to year ?

A Around about that.

Q Your cash working capital is based on retaining that much pipe there ?

A That is about the inventory. You can see there are about fifteen different sizes. I would think it is there ranging from half inch up to sixteen. It is necessary to have some lengths of pipe on hand for ordinary maintenance work.

(Go to Page 3525)

Q Well, I understood you to say you did not anticipate there would be any necessity for pipe replacement?

A I understood you to be referring to complete replacement of a gas gathering line.

Q Oh, no.

A Oh, there will always be maintenance work on short lengths of pipe, replacement of pipe lines and water lines.

Q Repairs?

A Yes, repairs generally.

Q Repairs generally?

A Yes.

Q You anticipate that you would have repairs?

A Yes. There is one item there that is in stock longer than normally it should because that is an extra heavy two-inch pipe.

Q What I had in mind was whether you were carrying pipe in this inventory M-7-B that you anticipate would be used for capital construction in the year 1945?

A No sir.

Q Pardon?

A Not for capital construction. Like it says in that last column here, "Operating and Maintenance". Actually we would have to carry a larger stock on hand if we were not in a position to fall back on Royalite's stock which we do frequently.

Q Well I was misled by you saying there would not be any replacements required. Perhaps I should have said repairs and maintenance.

A You asked me whether we needed to keep that in through all the years, and I am pointing out that we would have to carry a bigger stock if it was not for the advantage we have of being able to fall back on Royalite, and to fall back on Royalite's

stock to draw on material we are not carrying ourselves.

Q I see?

A If we did not have that this inventory might be something double what it is.

DR. BOOMER: Isn't there a quantity of pipe available all around this area in Alberta?

A No sir. Sometimes you cannot get any of the length or size at all. Sometimes you can get pipe you would not be prepared to put on the job. We have had to wait even to bring in 20 feet of pipe.

Q The pipe around here would not be good enough?

A That is due to our rigid inspection.

Q MR. BLANCHARD: I have assumed from Mr.Hill's statements that the pipe in the ground was in such excellent condition that the repairs would be of a very nominal nature, and that is why I queried the carrying of that much pipe on the inventory, but if you say that we will have to accept what you say, because you know what you are saying, that you are not over-stocked in inventory for casual repairs?

A That is right.

Q All right, thank you, Mr. Stevens-Guille.

.....

RE-EXAMINATION BY MR. CHAMBERS

Q For instance, what is the smallest size of gas gathering pipe used, Mr. Stevens-Guille?

A We have a small amount of two inch. There is three and four and six.

Q Yes. I notice in this statement that you have prepared there is a considerable amount of pipe which varies from half

an inch to two inches, would that be mostly for the water system and the pipe around the plant?

A Yes.

Q That is right?

A Yes.

Q MR. Stevens-Guille, am I right in this that while Madison pays that out-of-pocket amount to Royalite Purchasing Department for supplies and equipment purchased, that the general over-all price, or that the over-all price to Madison is still lower than what you would have to pay if it were purchased on its own, if it were purchasing the pipe on its own?

A I would imagine so. We enjoy the bulk purchase agreement between the Imperial Oil and things like that.

Q Mr. Stevens-Guille, since the Board's original order to Madison made in 1944, directing or authorizing Madison to make the general new capital expenditure for the extension of the system, since that order has been made and the new construction carried out, has Royalite Oil Company made any application or any request to Madison for the extension of the gas gathering system to take in their wells connected to the absorption plant?

A No, Royalite has made no application.

Q Has any other company made application?

A Yes, we have received requests from one or two. Three companies.

Q Now arising out of a discussion that the members of the Board had with you prior to the recess, and I think Mr. Blanchard, I am suggesting to you, Mr. Stevens-Guille, that for every new or every additional crude well added to the Madison system, the immediate effect would be the reduction in the actual

product produced from the Royalite absorption plant?

A Yes, it decreased the volume, as I tried to bring out, by virtue of the fact that the equivalent volume of gas cap gas that would be shut in, as no gas is flared, is richer than the crude oil gas that is connected, hence the net effect is a smaller production of natural gasoline in the Royalite absorption plant.

Q And the more wells that are added to the system, the Madison system, the longer the period of deferment for the final reduction of the Royalite gas cap?

A That is a matter of fact.

Q Now, I am going to refer you to Volume 4, Mr. Stevens-Guille, of the transcript, page 204, in connection with the examination by my friend, Mr.Fenerty, of yourself as to your view that unified control or unity of operation in your opinion was fair. He seemed to have some question about that, or was trying to find out the basis for it.

MR. FENERTY: What page?

Q MR. CHAMBERS: In that connection I am referring to page 204, of Volume 4 of the transcript, where Mr. Collinge, the late Mr.Collinge, who was then City Solicitor, was examining Mr. S. J.Davies, the witness called by the City, and, obviously, from page 202 on it is indicated that Mr.Davies was talking about the Madison A plan, and the question Mr. Collinge put was this:

"Q What is your opinion as to economy of operation?

A Now there is one point about this Madison plan which we have given some consideration to,and that is the consumers are vitally interested when the temperature goes to fifty degrees below

" zero and a north wind is blowing on a cold morning. We feel that with one organization in the field to handle peak loads it is an infinitely sounder proposition than to depend upon three compression plants to operate all under three different ownerships. We think in the long run it is in th4 interest of the consumer to have one distributor in Calgary and one gathering organization in the field. That is in general. We must have provision for our peak loads. There is no provision for peak loads in either the B.A. or.Gas & Oil Products' plant and we are vitally interested in that point."

Now that is the opinion of Mr. Davies as an engineer. Now I am going to put to you whether you get any comfort from that statement as the position you took the other day in answer to Mr. Fenerty. Let us have your observation on that?

A Well, it would appear to be along the same lines of thought as I was drawing Mr. Fenerty's attention to in reply to his question.

Q Now, Mr. Stevens-Guille, I understand that the absorption plant, the Number 1 absorption plant, was enlarged in 1943?

A That is correct. Completed in early 1944.

Q And when those additions were made I suggest to you that allowances were made in the design and the actual construction to meet the surges due to peak loads, is that right?

A That is correct.

Q When I refer to the peak loads, I mean the gas supply to the Gas Company?

A Yes, in the peak loads themarket was the governing factor.

Q Now I think you told us that the first Conservation order or authority began to operate in 1938?

A Of the present Petroleum Natural Gas Conservation Board, yes.

Q Yes. And am I right in this, in the year before, 1937, that Royalit had already voluntarily made some move towards closing down a portion of the gas cap?

A Yes, as I have remarked, I think, in reply to somebody yesterday, it was then only processing some 75 million cubic feet per day.

Q Now, this is common knowledge but I want to get it on the record, Mr. Stevens-Guille. Irrespective of the number or why wells have been drilled in Turner Valley, the Gas Company since you have been in the Valley, since 1928, has taken its entire supply of gas from Turner Valleym is that right?

A That is correct, with the small exception of gas withdrawn from Foremost.

Q In the Foremost gas field?

A Yes, in exceptionally cold weather.

Q But to your knowledge during that period, from '28 down to '45, there had been a progressive reduction in the retail price of gas to consumers in Calgary?

A That was my understanding, yes.

Q Now there was some suggestion made to you that if this field had been operated as a straight gas field, and with the prime object or sole object of supplying gas, that probably something in the neighbourhood of 40 wells would have been drilled. Do you recall that?

A That I think was Mr.Steer dealing with the 40 wells that have presently been drilled in Viking.

Q Now, what is your view as to whether 40 wells would have done

or performed the operation in Turner Valley?

A Do you mean the entire operation that we are dealing with at this Hearing, down the full length of the life of the project?

(Go to page 3532).

Q Yes.

A Well of course it would have depended on the hypothetical factor, that is the productivity of each of those wells. But I would say it would be questionable, particularly keeping in mind the peak load capacity that 40 wells would have drained the full area involved when the reservoir pressure had declined towards the end of the project. In other words, you would probably have had to drill further wells at that time had they not been drilled already.

Q And as the pressure declines the number of additional wells to be drilled increases progressively does it not?

A That is correct.

Q Now am I right in this, if no conservation took place in Turner Valley, whether voluntarily or by government direction or authority, is it not so that the amount of Turner Valley gas available for the Calgary or Alberta market would be considerably less than it is now under this set-up.

A Well if there had been no conservation and the rate of production had continued at that of 1930 or 1931, probably there would not be a supply to the City of Calgary today.

Q There was some discussion yesterday - I just forget who it was with - but I think the question was put to you whether the system was over-built and you replied "not from that point of view". I made a note of it at the time but frankly it has slipped my mind what it was about. Can you recall that?

A I think that was the question that I was pointing out of the necessity of being able to supply the market at all times and while there might be more line capacity during normal operations you have got to have standby capacity

to be able to still supply the full market requirements.

Q Is this not right, aside altogether from the present day peak load requirements and continuity of service in order to get the ultimate recovery for the market you need gathering systems practically to the extent you have now?

A That is correct.

Q There was some question raised by the Chairman the other day as to freight rates on crude and the white products from Calgary to Regina. Have you made any inquiry about that in the meantime?

A Yes, I did make enquiry on that and the information given me was that the freight rate on a carload of crude oil was the same as the freight rate on a carload of gasoline.

Q Referring for a moment to Exhibit 123 put in this morning, which is the list of wells connected to the Royalite Absorption Plant, the first crude well in Turner Valley as I understand it was Turner Valley Royalties. I am talking of modern . . . . .

A Turner Valley Royalites Number 1.

Q That came in about 1936 didn't it?

A July 1936, I think.

Q And that is situated down in the Southern part of the field?

A That is correct.

Q Below Hartell?

A Yes, actually right in the town of Royalties.

Q And my information is there were no crude wells attached or connected to the Number 1 plant until the year 1939.

A Well that is the statement I made yesterday and earlier

this morning, Mr. Chambers, but Mr. Smith says yesterday in reviewing these figures and preparing this Exhibit 123 there were actually one or two wells connected in 1938. It would be late in 1938.

Q MR. STEER: Would you mind saying just there whether when Royalite drilled its crude wells after 1936 they were immediately connected up so far as the gas is concerned?

A You are referring to the ones in the North end?

Q You see I showed you a long list of crude wells that are connected to your plant and a lot of them were Royalite wells. Would I be right in thinking that as soon as those Royalite crude wells were drilled after 1936 they were connected up to your absorption plant?

A I do not think that would be true in every case. It was true wherever they were within reach or within easy reach of the gas gathering system.

Q MR. CHAMBERS: My information is that Royalite 29 is the first crude well attached to the Number 1 plant and that it was in the latter part of 1938.

A Yes I believe that would be correct.

Q There was some discussion this morning, I think by Mr. Blanchard, about the nitrogen plant load and the extra cost, operating cost involved. If you increase your load by 8,500,000 cubic feet a day for any extended period of time, I suggest to you there would also be the question of ultimately having to increase your gathering capital costs in order to get more production in order to take care of the increased load.

A Well that would depend of course on the source of this 8,500,000. At the present time that quantity is available.

Q Yes, under the actual facts as they exist down here you had a sufficient gas gathering system to get the gas, that is right is it not?

A Yes.

Q But as I understand he put a hypothetical question to you as an engineer as to what would be the basis of whether the cost would be more or less and I am suggesting to you that in addition to operating costs, and I am taking a hypothetical case, that if you had a certain amount of gas supply and a system attached to it to take care of a load for say 10 or 15 years, and that if you increased that load substantially, if you are going to operate for the same length of time and supply your increased load you would run into additional capital costs.

A In that hypothetical case, yes.

MR. BLANCHARD: May I interpose just to say I was assuming we were dealing with surplus gas.

MR. CHAMBERS: Oh.

MR. BLANCHARD: Surplus gas at this time.

Q MR. CHAMBERS: I am also suggesting to you that in the North end of the field, that is the wells connected to the Number 1 plant, that in connecting one of the factors and one of the main factors was the gas supplied because there had been a reduction by reason of the Brown Plan in the gas cap.

A Yes that is correct.

Q That is all, thanks.

Q THE CHAIRMAN: I have three questions, Mr. Stevens-Guille. Can you buy a compressor cheaper than I could buy one?

MR. CHAMBERS: You do not mean he himself? You mean his company. You are not asking him whether he could personally buy one.

Q THE CHAIRMAN: Surely he knows I mean the Madison. Could Madison buy a compressor cheaper than I could?

A I cannot answer that because I am not actually conversant with the contractual arrangements between the company and the compressor manufacturers.

Q Can Madison buy a mile of pipe cheaper than anyone of us here can buy it?

A There again I cannot answer that question because I do not know what the purchasing arrangement is.

Q Can you buy chemicals for your Girbotol cheaper than anyone here?

A That is in the same category, Mr. Chairman. I do not know the specific arrangements.

Q DR. BOOMER: Who would know?

A The purchasing agent in Toronto.

Q There would be nobody on your accounting staff here who would know?

A I do not think so. Those arrangements are made, naturally, by the Purchasing Agent of the organization in Toronto and are confidential arrangements as far as the manufacturers are concerned.

Q THE CHAIRMAN: That makes it very difficult for us to evaluate the service which you get for the $200,000 that you have to pay, that your company has to pay Royalite. What I am getting at is this, Mr. Stevens-Guille, the Board is not getting the information that it wants. You cannot give it and it is not suggested that anyone else is going

to do so and that leaves us in the very difficult position of having insufficient evidence upon which to base a proper conclusion. We might be obliged to arrive at it perhaps on an arbitrary basis which might be quite unfair especially when the factual evidence exists and can be produced. Only no one seems to know where it is.

A I am quite correct in saying of course the Purchasing Agent for the organization in Toronto knows.

Q Do not misunderstand me. I am not attempting to give you a lecture but I am merely drawing the attention of your company to the position which the Board might find itself in if we do not get the evidence that we should have. Someone is going to have a serious responsibility.

MR. CHAMBERS: In that respect I suggest that present indications are that this Hearing will last a considerable amount of time yet. I think you will agree that a considerable time has already expired and that witnesses of my clients have been in the box a large portion of that time and can only bring out so much evidence at a time. No one man could have all this stuff.

THE CHAIRMAN: Well that is just in the nature of letting you know what is in our minds.

MR. CHAMBERS: I am very glad to have it.

CROSS-EXAMINATION BY MR. FENERTY.

Q MR. FENERTY: Just three or four questions. You said to Mr. Chambers that if it had not been for conservation you would not be supplying the market today. That is the dry gas market. I think that is what you said, didn't you?

A I said it might not be.

Q I suggest to you that that indicates more clearly than anything we have heard so far that so far as the oil operators are concerned the dry gas market did not enter into their consideration. Does not that necessarily follow from that?

MR. CHAMBERS: Mr. Fenerty, I want to interject. I put it to him voluntarily or otherwise. I think in fairness you ought to take that into consideration.

MR. FENERTY: I say so far as they are concerned.

A Not so far as the Royalite Oil Company was concerned because the Royalite Oil Company, as Mr. Chambers just pointed out, voluntarily provided the reserves to take care of this proposition for a great number of years.

Q Then we will say so far as everybody else was concerned they were busily engaged in blowing as much gas in the air as they could and getting as much oil as they could.

A They were using their gas to lift their oil, yes, Mr. Fenerty.

THE CHAIRMAN: We will adjourn to Tuesday morning at 9.30 A.M.

(At this stage the Hearing was adjourned until 9.30 A.M. Tuesday, 9th of October, 1945.)

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